

DRAFT FOPR DISCUSSION PURPOSES

REMARKS

Claims 1, 3, 4, 8, 14 and 20 have been amended to clarify that the starch succinate is substituted with succinate, not crosslinked. Descriptive basis for the amendment wherein the starch has been substituted with succinate may be found in the specification at page 11, last line.

Claims 1 and 10-12 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Bell, et al. (US 4,504,509) and Mizoguchi, et al. (US 5,362,510). Bell discloses a liquid batter for use in coating foodstuffs which comprises ungelatinized, highly crosslinked, high amylose starch. The crosslinking agent may be selected from the group specified in col. 3. The Examiner notes that one of these reagents is succinic anhydride. The skilled artisan would understand that crosslinking, such as with succinic anhydride, is a process in which starch is treated with a poly-functional reagent so that two or more starch polymer chains are chemically linked. In contrast, the current invention claims a composition which comprises a starch succinate ester in which at least one of the hydroxyl groups on a single starch polymer is replaced by an ester group. This is not a *crosslinked* starch but a *substitution* in which the starch gains a substituent. Thus, Bell teaches starch polymers that are linked together while the present invention teaches starches which are not linked together.

Mizoguchi teaches starches which are crosslinked with epichlorohydrin, but states that they may be crosslinked with esterifying agents such as succinic anhydride.

The skilled artisan understands that whether a starch reacted with succinic anhydride will be substituted (form a half ester) or crosslinked depends upon the reaction. As stated in the Billmers declaration (of record), "the patent application 'discloses a starch ester; that is, a single starch polymer in which one of the hydroxyl groups has been substituted with an ester group. This is based upon the description, particularly the examples.'" Billmers then continues to specifically point out the conditions which lead to his conclusion. Thus, it is clear that both Bell and Mizoguchi disclose crosslinked starches while the present invention discloses a substituted starch and, as the starches are different, the rejection has been overcome.

Claims 2-6 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Bell, et al. (US 4,504,509) in view of Richards, et al. (US 4,035,235). As

DRAFT FOPR DISCUSSION PURPOSES

explained above. Bell does not disclose using a half-ester or starch substituted with succinate, but a crosslinked starch. The Examiner then uses Richards to teach that starch derivatives may be converted. However, as Bell does not teach substituted starches, this rejection has been overcome.

Claims 8 and 13-22 have been rejected under 35 U.S.C. § 103(a) as being patentable over Bell, et al. (US 4,504,509) in view of Wu et al. (US 5,648,110). As explained above, Bell does not disclose using a substituted starch, but a crosslinked starch. The Examiner then uses Wu to teach that adding a different type of starch in addition to the main starch component. However, this does not cure the deficiency of Bell and the rejection is therefore overcome.

Claims 1, 2 and 7 have been rejected under 35 U.S.C. § 103(a) as being patentable over Shi, et al. (US 2003/0099744). Shi discloses glazing food using a converted starch. The starch may be modified using any chemical modification, specifying that particularly useful starches are acetylated, hydroxylated, phosphorylated, succinated and substituted succinate derivatives. However, modification is only an optional step and succinated starch esters just one of the possible modifications with none of the examples showing such succinated starches. The Examiner states that the point of applying before frying or after frying is not germane to the issue at hand because the claims are directed to the food product not making it. Applicants respectfully disagree. Claim 1 as written is a product by process claim in that the starch succinate derivative is "adhered directly on the food portion to form a coated food portion which is subsequently fried or par-fried."

The order of the step results in a different product as if the food portion is fried or par-fried and then the starch succinate is adhered to the fried/par-fried food, the product will have a higher fat content. Thus, not only does the order of these steps change the product, but the order also distinguishes the present invention from Shi, overcoming the rejection.

The Examiner continues that "it would have been obvious to apply the glaze to food products that have been fried." Applicants agree. However, applying the glaze to food product which have been fried would not result in the present invention.

DRAFT FOPR DISCUSSION PURPOSES

The Examiner has failed to consider the process limitations of claim 1 (that the food portion is coated and then subsequently fried or par-fried). The process limitations of the claims need to be considered to the extent that they provide a different product. Examples 2 and 3 show that French fries which have been coated with a starch substituted by succinates differ from those in which no starch has been added prior to frying in that there is a reduced fat level. Although no comparison is made with French fries which have been coated with starch after frying, the skilled artisan would recognize that adding starch after frying would not reduce the fat level as there is no further addition of (exposure to) fat.

In view of the foregoing, Applicant submits the Application is now in condition for allowance and respectfully requests early notice to that effect. Election by the Applicants not to address each and every statement made by the Examiner does not imply agreement with any unaddressed statement.

Respectfully submitted,
DRAFT

National Starch LLC
10 Finderne Avenue
Bridgewater, NJ 08807
(908) 575-6152

Karen C. Kaiser
Attorney for Applicants
Reg. No. 33,506

Dated: _____

#78547.v1